LKT Laboratories, Inc.

trans-Anethole

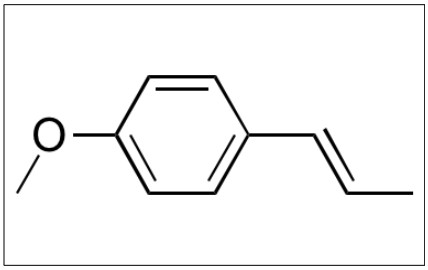
Phone: 888-558-5227
651-644-8424
Fax: 888-558-7329
Email: getinfo@lktlabs.com
Web: lktlabs.com

Product Information

Product ID A5217
CAS No. 4180-23-8
Chemical Name 1-Methoxy-4-(1E)-1-propenylbenzene

Synonym trans-p-Propenylanisole, Anise camphor, Isoestragole, Monasirup

Formula $C_{10}H_{12}O$
Formula Wt. 148.20
Melting Point 21.4°C
Purity ≥98%
Solubility Soluble in benzene, ethyl acetate, acetone, carbon disulfide, petroleum ether, ethanol (500 mg/mL).



Bulk quanitites available upon request

Product ID	Size
A5217	50 ml
A5217	100 ml

Store Temp Ambient
Ship Temp Ambient

Description Trans-anethole is a phenylpropene derivative found in many essential oils, including anise oil. Trans-anethole is commercially used as an insecticide and flavorant. This compound exhibits neuromodulatory, anxiolytic, antioxidative, antifungal, anti-inflammatory, and immunomodulatory activities. Trans-anethole activates NMDA receptors, decreasing Ca2+ overload and ROS levels and protecting against cerebral ischemia-induced neurodegeneration. Trans-anethole also inhibits growth of Aspergillus and Saccharomyces. In vivo, this compound decreases expression of TNF-α, IL-6, HMGB-1, toll-like receptor 4 (TLR4), and MyD88 and suppresses activation of ERK, p38 MAPK, JNK, c-Jun, and NF-κB.

References

Miyagawa M, Satou T, Yukimune C, et al. Anxiolytic-Like Effect of Illicium verum Fruit Oil, trans-Anethole and Related Compounds in Mice. Phytother Res. 2014 Jun 11. [Epub ahead of print]. PMID: 24919985.

Ryu S, Seol GH, Park H, et al. Trans-anethole protects cortical neuronal cells against oxygen-glucose deprivation/reoxygenation. Neurol Sci. 2014 Oct;35(10):1541-7. PMID: 24777545.

Fujita KI, Tatsumi M, Ogita A, et al. Anethole induces apoptotic cell death accompanied by reactive oxygen species production and DNA fragmentation in Aspergillus fumigatus and Saccharomyces cerevisiae. FEBS J. 2014 Jan 2. [Epub ahead of print]. PMID: 24393541.

Cho HI, Kim KM, Kwak JH, et al. Protective mechanism of anethole on hepatic ischemia/reperfusion injury in mice. J Nat Prod. 2013 Sep 27;76(9):1717-23. PMID: 23962021.